

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2004/006613

<b>A. CLASSIFICATION OF SUBJECT MATTER</b>		
IPC 7	A23L1/29	A23L1/30 A23L1/305 A61K35/74 A61K31/202
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols)		
IPC 7 A23L A61K		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the International search (name of data base and, where practical, search terms used)		
EPO-Internal, BIOSIS, FSTA, WPI Data, PAJ		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 231 904 A (MILUPA AG) 12 August 1987 (1987-08-12) page 2, lines 5-10; claims 1-6	1-19
Y	US 2002/004527 A1 (O' CONNOR DEBORAH L ET AL) 10 January 2002 (2002-01-10) pages 1-10; claims 1-21	1-19
Y	US 2003/060509 A1 (ELSWYK MARY VAN) 27 March 2003 (2003-03-27) page 1, paragraph 2; claim 41 page 4, paragraph 52-58 page 6, paragraph 84	1-19
Y	US 5 374 657 A (KYLE DAVID J) 20 December 1994 (1994-12-20) column 1, lines 29-38; claims 1-22; examples 4-6	1-5
-/-		
<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex.		
* Special categories of cited documents : *A* document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *G* document member of the same patent family		
Date of the actual completion of the international search		Date of mailing of the international search report
30 September 2004		11/10/2004
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax (+31-70) 340-3016		Authorized officer  De Jong, E

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2003/017192 A1 (KANAFANI HANNY ET AL) 23 January 2003 (2003-01-23) page 1, paragraphs 5,6; claims 1-25; example 3	1-19
Y	EP 0 904 784 A (NUTRICIA NV) 31 March 1999 (1999-03-31) column 8, paragraph 58 - column 9, paragraph 64; example 7	1-19
Y	WO 02/15719 A (NESTLE SA) 28 February 2002 (2002-02-28) example 6	1
Y	US 2003/077255 A1 (SABHARWAL HEMANT K) 24 April 2003 (2003-04-24) page 2, paragraphs 10,14; claims 1-12 page 1, paragraphs 3,7	1,6, 14-16
Y	OGATA T ET AL: "EFFECT OF BIFIDOBACTERIUM LONGUM BB536 YOGHURT ADMINISTRATION ON THE INTESTINAL ENVIRONMENT OF HEALTHY ADULTS" MICROBIAL ECOLOGY IN HEALTH & DISEASE, CHICHESTER, GB, vol. 11, no. 1, March 1999 (1999-03), pages 41-46, XP009023764 the whole document	7,10, 14-19
Y	GRILL J P ET AL: "Bifidobacteria and probiotic effects: action of Bifidobacterium species on conjugated bile salts." CURRENT MICROBIOLOGY. JUL 1995, vol. 31, no. 1, July 1995 (1995-07), pages 23-27, XP008036111 ISSN: 0343-8651 the whole document	7,10, 14-19
Y	ISOLAURI E ET AL: "Probiotics in the management of atopic eczema." CLINICAL AND EXPERIMENTAL ALLERGY : JOURNAL OF THE BRITISH SOCIETY FOR ALLERGY AND CLINICAL IMMUNOLOGY. NOV 2000, vol. 30, no. 11, November 2000 (2000-11), pages 1604-1610, XP002298117 ISSN: 0954-7894 the whole document	8-10, 14-19
Y	WO 02/060276 A (MAEYRAE-MAEKINEN ANNIKA ; SUOMALAINEN TARJA (FI); VALIO LTD (FI); VAAR) 8 August 2002 (2002-08-08) the whole document	8-10, 14-19
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# INTERNATIONAL SEARCH REPORT

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PCT/EP2004/006613

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	SAXELIN M: "LACTOBACILLUS GG - A HUMAN PROBIOTIC STRAIN WITH THOROUGH CLINICAL DOCUMENTATION" FOOD REVIEWS INTERNATIONAL, NEW YORK, NY, US, vol. 13, no. 2, 1997, pages 293-313, XP000199732 the whole document	8-10, 14-19
Y	KALLIOMAKI M ET AL: "Probiotics and prevention of atopic disease: 4-year follow-up of a randomised placebo-controlled trial" LANCET THE, LANCET LIMITED. LONDON, GB, vol. 361, no. 9372, 31 May 2003 (2003-05-31), pages 1869-1871, XP004428374 ISSN: 0140-6736 the whole document	8-10, 14-19
Y	EP 1 048 226 A (NESTLE SA) 2 November 2000 (2000-11-02) claims 1-4; examples 1,2	1,2,4, 11-13,17
Y	KANKAANPAA P E ET AL: "The influence of polyunsaturated fatty acids on probiotic growth and adhesion." FEMS MICROBIOLOGY LETTERS 194 (2) 149-153 2001 DEP. OF BIOCHEM. & FOOD CHEM., UNIV. OF TURKU, 20014 TURKU, FINLAND. TEL. +358 (2) 333 6873. FAX +358 (2) 333 6860. E-MAIL PAERKA(A)UTU.FI, 2001, XP002261972 pages 152-153	1,2,4
Y	DE 102 19 684 A (FRIEDRICH BUESE CONSULTING GMB ;UNTERNEHMENSBERATUNG REICHENAU (DE) 14 November 2002 (2002-11-14) claims 1,10	1,2,4
A	EP 0 880 902 A (NESTLE PRODUKTE AG) 2 December 1998 (1998-12-02) cited in the application the whole document	11
A	DE 202 02 562 U (ORTHOMOL PHARMAZEUTISCHE VERTR) 23 May 2002 (2002-05-23) claims 1,2	6
	-/--	

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# INTERNATIONAL SEARCH REPORT

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>MATSUMOTO M ET AL: "ADHESIVE PROPERTY OF BIFIDOBACTERIUM LACTIS LKM512 AND PREDOMINANT BACTERIA OF INTESTINAL MICROFLORA TO HUMAN INTESTINAL MUCIN" CURRENT MICROBIOLOGY, NEW YORK, NY, US, vol. 44, no. 3, 2002, pages 212-215, XP008024172 ISSN: 0343-8651 page 212 page 215</p> <p>-----</p>	3

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## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 14-19 (partly)  
because they relate to subject matter not required to be searched by this Authority, namely:  
Although claims 14-19 are directed to a method of treatment of the human body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/006613

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0231904	A	12-08-1987	DE 3603000 A1 AT 63425 T DE 3770005 D1 EP 0231904 A2 GR 3001950 T3	06-08-1987 15-06-1991 20-06-1991 12-08-1987 23-11-1992
US 2002004527	A1	10-01-2002	AU 5533701 A CA 2405822 A1 CN 1436048 T EP 1272058 A2 JP 2004518609 T WO 0178530 A2 US 2003190363 A1 US 2002045660 A1	30-10-2001 25-10-2001 13-08-2003 08-01-2003 24-06-2004 25-10-2001 09-10-2003 18-04-2002
US 2003060509	A1	27-03-2003	WO 03017945 A2	06-03-2003
US 5374657	A	20-12-1994	AT 200619 T AU 661297 B2 AU 1239292 A BR 9205526 A CA 2101274 A1 DE 69231793 D1 DE 69231793 T2 DE 568606 T1 DK 568606 T3 EP 1092352 A2 EP 0568606 A1 ES 2157898 T3 GR 3036139 T3 IL 100733 A IL 114253 A JP 2731035 B2 JP 6505153 T MX 9200320 A1 NZ 241359 A OA 10348 A RU 2093996 C1 SG 49307 A1 WO 9212711 A1 US 5550156 A ZA 9200452 A	15-05-2001 20-07-1995 27-08-1992 19-04-1994 25-07-1992 23-05-2001 08-11-2001 25-02-1999 23-07-2001 18-04-2001 10-11-1993 01-09-2001 28-09-2001 31-12-1995 13-07-1997 25-03-1998 16-06-1994 01-10-1992 26-08-1994 19-10-2001 27-10-1997 18-05-1998 06-08-1992 27-08-1996 28-10-1992
US 2003017192	A1	23-01-2003	CA 2451411 A1 EP 1404185 A1 WO 02102168 A1	27-12-2002 07-04-2004 27-12-2002
EP 0904784	A	31-03-1999	EP 0904784 A1	31-03-1999
WO 0215719	A	28-02-2002	AU 9177701 A AU 9548801 A BR 0113367 A BR 0113390 A CA 2418285 A1 CA 2419026 A1 CN 1469712 T CN 1471363 T WO 0215719 A2	04-03-2002 04-03-2002 29-07-2003 29-07-2003 28-02-2002 28-02-2002 21-01-2004 28-01-2004 28-02-2002

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/006613

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 0215719	A	WO 0215720 A2	28-02-2002
		EP 1313378 A2	28-05-2003
		EP 1313376 A2	28-05-2003
		HU 0301475 A2	28-08-2003
		HU 0301586 A2	28-08-2003
		JP 2004506436 T	04-03-2004
		JP 2004506437 T	04-03-2004
		US 2003202992 A1	30-10-2003
		US 2002044988 A1	18-04-2002
		US 2002044957 A1	18-04-2002
US 2003077255	A1	24-04-2003	NONE
WO 02060276	A	08-08-2002	FI 20010157 A
			BR 0206689 A
			CA 2434337 A1
			CN 1487798 T
			CZ 20031915 A3
			EE 200300351 A
			EP 1359816 A1
			WO 02060276 A1
			HU 0401017 A2
			JP 2004524836 T
			NO 20033283 A
			US 2004062758 A1
EP 1048226	A	02-11-2000	EP 1048226 A1
			AU 765986 B2
			AU 4753500 A
			BR 0010125 A
			CA 2371696 A1
			CN 1358067 T
			WO 0111990 A1
			NO 20015178 A
			PL 351599 A1
			US 6777391 B1
			ZA 200108412 A
DE 10219684	A	14-11-2002	DE 10219684 A1
EP 0880902	A	02-12-1998	EP 0880902 A1
			AU 746520 B2
			AU 8107798 A
			BR 9809171 A
			CA 2288184 A1
			WO 9853702 A1
			EP 0986312 A1
			JP 2002514085 T
			NZ 500848 A
			US 6787158 B1
DE 20202562	U	23-05-2002	DE 20202562 U1

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